



Delivers Ultra Low NOx Compliance Right Out of the Box

Site Information

User: Providence Holy Cross Hospital
Location: Mission Hills, CA
Boiler: Union Iron Works - watertube
Contractor: Johnson's Boiler & Control, Inc.
Fresno, CA
Burner: NOXmatic® A-Type
Capacity: 300 HP
Fuel: Natural Gas
Emission Limit: 9 ppm NOx

Situation

Providence Holy Cross Hospital had successfully operated S.T. Johnson FD68 burners for many years on their two Union Iron Works watertube boilers. When a new regulation required them to reduce NOx emissions below 9 ppm, they did not hesitate to call S.T. Johnson again. They selected an S.T. Johnson NOXmatic® burner that requires no Flue Gas Recirculation to achieve sub-9 ppm NOx.

Solution

S.T. Johnson Company delivered a NOXmatic® Type-A burner system. The NOXmatic® burner does not require flue gas recirculation to achieve ultra low NOx emissions, thereby eliminating the added expense of installing, operating and maintaining an FGR system.

The NOXmatic® Type-A burner incorporates S.T. Johnson's trademark axial-flow air blower arrangement with swing-open housing to provide easy access to all burner internals for ease of maintenance. This allowed S.T. Johnson to provide a streamlined, compact package which was a direct replacement of the existing FD68 burners and minimized installation work. The result was a very clean, quick and cost-effective installation.



The burner system included Fireye PPC-6000 parallel positioning linkage-less controls. System efficiency was further enhanced by the use of an AB PowerFlex variable frequency drive to modulate combustion air fan speed in accordance with burner load.

Results

The NOXmatic® burner took a total of four days to install and commission after arriving on the site. After the burner passed the source test with flying colors, the hospital promptly ordered a second NOXmatic™ burner to retrofit their #2 boiler. Final performance parameters were as follows:

NOx limit:	9 ppm @ ref. 3% O ₂ , dry
NOx emission actual:	8 ppm @ ref. 3% O ₂ , dry
CO emission actual:	0 ppm @ ref. 3% O ₂ , dry

For more information, call your authorized S.T. Johnson distributor. Find a complete list of distributors at www.johnsonburners.com

NMA Case 1 (3/6/09)

S.T. Johnson Company

925 Stanford Ave. • Oakland, CA 94608 • USA • Phone (510) 652-6000 • Fax (510) 652-4302 • www.johnsonburners.com